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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,711	06/25/2003	Wayne M. Blackwell	FS-00887	9978

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RESTON, VA 20191

EXAMINER

ADAMS, GREGORY W

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,711

Applicant(s)

BLACKWELL ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. Claims 1, 17, 21 & 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear whether applicant is claiming a sensor which detects the amount of contents within a container or whether applicant is claiming a sensor which detects the position of a container based on whether the capacity of contents within a container.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lilley (US 5,865,590).

With respect to claim 25, referring to FIGS. 1-10 Lilley discloses a control system for loading packages including a module 12 to detect bucket assembly full and tilt, detect bucket assembly position, and controls bucket assembly movement.

With respect to claim 26, referring to FIGS. 1-10 Lilley discloses a positional sensor. Col. 5, Ins. 7-9.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilley (US 5,865,590) in view of Smith (US 4,534,156) (cited by applicant).

With respect to claim 1, referring to FIGS. 1-10 Lilley discloses an apparatus for loading mail objects 1 comprising a bucket assembly 3, 4 which holds a bucket assembly 3, actuator system 7, 8, 9, 10, feedback control system 12 (col. 12-16) to detect bucket position. Lilley does not disclose a fill sensor to detect fill capacity.

Referring to FIGS. 1-4 Smith discloses a fill sensor 40 (col. 3, Ins. 35-38), 50 to detect fill capacity (col. 3, Ins. 52-56). Smith teaches that fill sensors increase loading speeds to 150 containers per hour, thereby reducing labor costs. Col. 1, Ins. 5-15. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add fill sensor to the apparatus of Lilley for loading mail objects into a container, as per the teachings of Smith, such that loading speeds are increased, thereby reducing labor costs.

With respect to claims 2-9, referring to FIGS. 1-10 Lilley discloses a positioning sensor (col. 5, Ins. 7-9) minimizing damage to packages or other mail objects, bucket assembly 3, 4 which has an open side 15, safety sensor 28, 29 on actuator 7, 8, 9, 10, additional positional sensor, bucket assembly 3, 4 which has upright and down position I, chute sensor (col. 5, Ins. 7-9), and a cradle assembly 4 coupled to an actuator 7, 8, 9, 10.

With respect to claim 10, referring to FIGS. 1-10 Lilley discloses a cradle assembly 4 which further includes a cradle shaft 58, 59 coupled to a mounting system 37, 38 of a frame assembly 37, 38.

With respect to claim 11, referring to FIGS. 1-10 Lilley discloses a cradle assembly 4 which further includes lift ribs 36 coupled to a mount assembly 37, 38.

With respect to claim 12, referring to FIGS. 1-10 Lilley discloses an actuator system 7, 8, 9, 10 is a hydraulic system 7, 8, 9, 10 air cylinder and screw-type system 7, 8, 9, 10.

With respect to claim 13, referring to FIGS. 1-10 Lilley discloses an actuator system 7, 8, 9, 10 includes a linkage system 4.

With respect to claim 14, referring to FIGS. 1-10 Lilley discloses a bucket assembly 3, 4 includes a floor assembly 3, 4 and a rear wall assembly 3, 4.

With respect to claim 15, referring to FIGS. 1-10 Lilley discloses a raised coplanar surface 3, 4 permits packages to be introduced into a half-sized bucket assembly 3, 4.

With respect to claim 16, referring to FIGS. 1-10 Lilley discloses a positional feedback system 12 (col. 12-16).

With respect to claim 17, referring to FIGS. 1-10 Lilley discloses a loading system 1 comprising a transporting and sorting system including an induction mechanism, chute 14, bucket assembly 3, 4 to hold a bucket assembly 3, actuator system 7, 8, 9, 10, and a feedback control system 12 (col. 12-16). Lilley does not include a sensor to sense fill. Referring to FIGS. 1-4 Smith discloses a fill sensor 40 (col. 3, lns. 35-38), 50 to

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detect fill capacity (col. 3, Ins. 52-56). Smith teaches that fill sensors increase loading speeds to 150 containers per hour, thereby reducing labor costs. Col. 1, Ins. 5-15.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add fill sensor to the apparatus of Lilley for loading mail objects into a container, as per the teachings of Smith, such that loading speeds are increased, thereby reducing labor costs.

With respect to claims 18-20, referring to FIGS. 1-10 Lilley discloses a sensor (col. 5, Ins. 7-9) to sense positioning, safety sensor 28, 29, additional sensor, chute sensor (col. 5, Ins. 7-9), feedback control system position sensors (col. 5, Ins. 7-9) and controller 12 (col. 5, Ins. 7-9).

With respect to claims 21-22, referring to FIGS. 1-10 Lilley discloses a method for loading packages including placing a bucket assembly (col. 4, Ins. 64-67), indexing a bucket assembly (col. 5, Ins. 1-11), detecting full bucket assembly at intermediate tilt II (col. 5, Ins. 12-21), and indexing bucket assembly to upright (col. 5, Ins. 12-21). Lilley does not disclose detecting when a bucket assembly is full. Referring to FIGS. 1-4 Smith discloses detecting when a bucket assembly is full. Col. 3, Ins. 35-56. Smith teaches that fill sensors increase loading speeds to 150 containers per hour, thereby reducing labor costs. Col. 1, Ins. 5-15. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add fill sensor to the apparatus of Lilley for loading mail objects into a container, as per the teachings of Smith, such that loading speeds are increased, thereby reducing labor costs.

With respect to claim 23, referring to FIGS. 1-10 Lilley discloses detecting bucket assembly proper positioning col. 5, Ins. 12-21.

With respect to claim 24, referring to FIGS. 1-10 Lilley discloses detecting problems and stopping. Col. 5, Ins. 12-21.

Response to Arguments

4. Applicant's arguments filed May 25, 2005 have been fully considered but they are not persuasive.

With respect to claims 25 & 26 applicants argue that Lilley does not disclose a module which detects when a bucket assembly is full at a first tilt, intermediate, and uprights positions. Broadly construed module refers to "7. a unit of instruction". www.dictionary.com Lilley discloses a module 12 providing container positioning to controllably empty a bucket assembly in alternatively full, intermediate, and upright positions. Moreover, Lilley discloses limit switches corresponding to each position (col. 5, Ins. 5-26) a container reaches during its cycle. Because Lilley discloses a bucket assembly for emptying mail onto a conveyor or receptacle controlled tilting provides emptying of the contents, or in the alternative tilting a full bucket to initiate a measured discharge from said bucket. As no additional structure has been provided in claim 25 to inform one skilled in the art what "module" refers to, Lilley discloses a module for full bucket positioning at different positions. With respect to claim 26, Lilley discloses limit switches. It is noted that it is not clear whether applicant is claiming a sensor which detects the amount of contents within a bucket assembly or whether applicant is claiming a sensor which detects the position of a bucket assembly and thereby the

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amount of contents with a container. For the former, Lilley discloses limit switches which indicate bucket assembly position during emptying to an operator who monitors the emptying process.

With respect to claims 1, 17 & 21 applicants argue that Lilley does not disclose a feedback control system. With respect to col. 4, ln. 53 – col. 5, ln. 50 Lilley discloses a control module 12 in concert with a hydraulic circuit including valves and cylinders which based on valving and position sensors provide the feedback to provide controlled dumping. Further, Lilley discloses a controlled dumping. Lilley discloses feedback within a control circuit 12 to provide the ability. The fact that an operator initiates the dumping cycle does not eliminate the need within Lilly of a control circuit 12 that provides feedback between cylinders and valves and positional sensors else the contents would randomly exit the bucket assembly in a disorderly, uncontrolled fashion.

With respect to claims 1, 17 & 21 applicants argue that Smith's treatment of oranges is not related to mail objects. Applicant is respectfully reminded that the material or article worked upon by the apparatus does not limit apparatus claims. See MPEP 2115.

Applicant also argues that Smith does not disclose a sensor for detecting when a bin is filled. It is noted that the combination of Lilley's bin positioning and Smith's full sensors provides for sensing whether a bin is full. Applicant argues that Smith's sensor which "...responds when the bin 28 is filled to a level..." (Applicants remarks, page 14, lns. 8-10) does not recite a full detector at different bin positions. As noted above under claim 25 arguments Lilley's control circuit 12 provides for bin positioning and limit

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switches along and consequently controlled dumping. It follows that Smith modifies the feature of controlled dumping by providing a control circuit the proper bin full information. Thus, the combination of Lilley and Smith provides a bin with position sensors and full sensors to control the rate of dumping.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine stems from the fact that both Lilley and Smith address the problem of controlled filling and/or bin, e.g. container or bucket assembly, emptying.

Finally, in response to applicants arguments that Lilley combined with Smith does not disclose claims 2, 3, 6, 10-11, 14-16, 18-20 & 22-24 applicant provided no reasoning and thus this argument is without merit.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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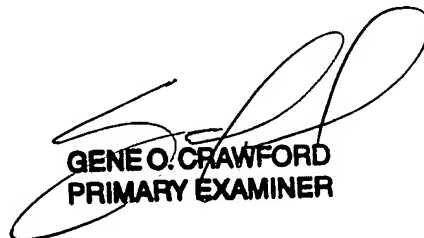
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA


GENE O. CRAWFORD
PRIMARY EXAMINER